CTM	Termostatické radiátorové ventily Požiadavky a skúšobné metódy	STN EN 215
STN		13 7302

Thermostatic radiator valves - Requirements and test methods

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/20

Obsahuje: EN 215:2019

Oznámením tejto normy sa ruší STN EN 215 (13 7302) z apríla 2005 STN EN 215: 2020

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 215

September 2019

ICS 91.140.10

Supersedes EN 215:2004

English Version

Thermostatic radiator valves - Requirements and test methods

Robinets thermostatiques d'équipement du corps de chauffe - Exigences et méthodes d'essai

Thermostatische Heizkörperventile - Anforderungen und Prüfung

This European Standard was approved by CEN on 29 July 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Cont	Contents		
Europ	ean foreword	4	
1	Scope	5	
2	Normative references	5	
3	Terms and definitions	5	
4	Symbols and abbreviations		
-			
5 5.1	Requirements Dimensions		
5.1 5.2	Mechanical properties		
5.2.1	Resistance to pressure, leak-tightness of the valve body assembly		
5.2.2	Leak-tightness of the stem seal		
5.2.3	Resistance of the valve body assembly to a bending moment		
5.2.4	Resistance of the temperature selector to a torque		
5.2.5	Resistance of the temperature selector to a bending moment		
5.2.6	Exchange of the stem seal		
5.3	Operating characteristics		
5.3.1	Nominal flow rate and flow rate at S-1 K		
5.3.2	Characteristic flow rate at the minimum and maximum setting of the temperature		
	selector	15	
5.3.3	Characteristic flow rate for thermostatic valves having a pre-setting facility	15	
5.3.4	Sensor temperature at the minimum and maximum setting of the temperature		
	selector		
5.3.5	Hysteresis at the nominal flow rate		
5.3.6	Differential pressure influence		
5.3.7	Influence of the static pressure	16	
5.3.8	Temperature difference between temperature point S and the closing and opening		
	temperature respectively	16	
5.3.9	Influence of ambient temperature on thermostatic valves with transmission		
	elements		
	Water temperature effect		
	Response time		
5.4 5.4.1	Endurance and temperature resistance		
5.4.1 5.4.2	Mechanical endurance		
5.4.2 5.4.3	Thermal endurance Temperature resistance		
3.4.3	•		
6	Test apparatus and methods		
6.1	Test apparatus		
6.1.1	Apparatus to obtain the hydraulic data	17	
6.1.2	Apparatus for testing the thermostatic valve and the integrated thermostatic valve		
	in the water bath		
6.1.3	Apparatus for testing the thermostatic valve in the air stream		
6.2	Characteristic curves of thermostatic valves		
6.2.1	Determination of the characteristic curves		
6.2.2	Plotting of the theoretical curve		
6.3 6.3.1	Testing of mechanical propertiesResistance to pressure, leak-tightness of the valve body assembly		
0.5.1	nesistance to pressure, leak-tightness of the valve body assembly	44	

6.3.2	Leak-tightness of the valve closed mechanically by means of the protection cap	24
6.3.3	Leak-tightness of the stem seal	
6.3.4	Resistance of the valve body assembly to a bending moment	25
6.3.5	Resistance of the temperature selector to a torque	26
6.3.6	Resistance of the temperature selector to a bending moment	
6.4	Testing of operating characteristics	
6.4.1	Characteristic data	
6.4.2	Endurance tests and temperature resistance test	
6.5	Test schedule	32
7	Technical information to be published by the manufacturer	33
Annex	x A (normative) Thermostatic Radiator Valves — Dimensions and details on connection	36
A.1	General	36
A.2	Dimensions	36
A.3	Connection details	39
A.4	Materials for body, tailpiece and nut	40
A.5	Designation	40
A.6	Marking	40
A.7	Calculation of Control Accuracy — CA value	40
Annex	x B (informative) Degree of turbulence of the air current in a room	42
Annex	x C (informative) Test block for thermostatic integrated valves	43
Rihlin	oranhy	4.4

European foreword

This document (EN 215:2019) has been prepared by Technical Committee CEN/TC 130 "Space heating appliances without integral heat sources", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 215:2004/A1:2006.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies definitions, requirements and test methods for thermostatic radiator valves referred to hereafter as thermostatic valves.

This standard applies to two port thermostatic valves with or without pre-setting facility and thermostatic integrated valves with or without pre-setting facility for fitting to radiators in wet central heating installations up to a water temperature of 120 °C and a nominal pressure of PN 10.

This standard further specifies the dimensions, the materials and the connection details of four series of straight and angle pattern thermostatic radiator valves of nominal pressure \leq PN 10.

This standard can be used as reference in a CEN/CENELEC Certification Mark System on thermostatic radiator valves.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1982, Copper and copper alloys — Ingots and castings

EN 12164, Copper and copper alloys — Rod for free machining purposes

EN 12168, Copper and copper alloys — Hollow rod for free machining purposes

EN 12420, Copper and copper alloys — Forgings

EN 12449, Copper and copper alloys — Seamless, round tubes for general purposes

EN ISO 228-1, Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1)

ISO 7-1, Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation

ISO 965-1, ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data

koniec náhľadu – text ďalej pokračuje v platenej verzii STN